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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,135	10/01/2003	David G. Hosie	WEAT/0259.P1	3899

7590

11/03/2005

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EXAMINER

THOMPSON, KENNETH L

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/677,135	<b>Applicant(s)</b> HOSIE ET AL.	
	<b>Examiner</b> Kenneth Thompson	<b>Art Unit</b> 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-94 is/are pending in the application.
- 4a) Of the above claim(s) 15, 16, 66, 67, 74, 75, 83 and 84 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 61-65, 68, 69 and 88-94 is/are allowed.
- 6) ☒ Claim(s) 1-4, 13, 70, 71, 77, 78, 81 and 86 is/are rejected.
- 7) ☒ Claim(s) 14, 17, 72, 73, 76, 79, 80, 82, 85 and 87 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8, 7, 3/05; 10/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Species IV in the reply filed on 26 August 2005 is acknowledged.

### ***Claim Objections***

Claims 78 are objected to because of the following informalities:

The recitation "the optical line" should be changed to "an optical line". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-4, 13, 70, 71, 77, 78, 81 and 86 are rejected under 35 U.S.C. 102(a) as being anticipated by Tubel et al., U.S. 6,531,694.

Regarding claims 1-3, 70, 71, 77, 81 and 86, Tubel et al. discloses a housing (108), a valve member (114; col. 10, lines 6-8) and a plurality of operatively connected optical fluid pressure sensors (120).

As to claims 4 and 13, Tubel et al. discloses a seismic sensor (col. 9, line 53; vibration sensor inherently capable of measuring seismic waves).

As to claims 5 and 6, Tubel et al. discloses a control member (110) for valve (114) movement (col. 9, lines 50-60).

As to claim 78, Tubel et al. discloses an optical line (122).

***Allowable Subject Matter***

Claims 61-65, 68, 69 and 88-94 are allowed.

Claim 14, 17, 72, 73, 76, 79, 80, 82, 85 and 87 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose or suggest all the claimed subject matter including the seismic source is within a drill string in a well.

The prior art of record does not disclose or suggest all the claimed subject matter including the seismic source is a vibration of a wellbore tool against the wellbore.

The prior art of record does not disclose or suggest all the claimed subject matter including the valve and an optical sensor sensing a parameter while lowering a drill string.

The prior art of record does not disclose or suggest all the claimed subject matter including a seismic source transmitting for transmitting an acoustic wave into the formation.

The prior art of record does not disclose or suggest all the claimed subject matter including a housing disclosed around the casing string.

The prior art of record does not disclose or suggest all the claimed subject matter including a flow meter having an optical sensor.

The prior art of record does not disclose or suggest all the claimed subject matter including micro-seismic activity measuring.

The prior art of record does not disclose or suggest all the claimed subject matter including a downhole valve and optical sensor measuring flow rate.

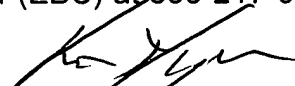
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Thompson whose telephone number is 571 272-7037. The examiner can normally be reached on 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

31 October 2005

  
Kenneth Thompson  
Primary Examiner  
Art Unit 3672